

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/000460

International filing date (day/month/year)
21.01.2004

Priority date (day/month/year)
24.01.2003

International Patent Classification (IPC) or both national classification and IPC
C25B11/02

Applicant
DE NORA ELETTRODI S.p.A.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

10/541152

International application No.
PCT/EP2004/000460

JC20 Rec'd PCT/PTO 29 JUN 2005

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------------|
| Novelty (N) | Yes: Claims | 3-18 21-23 |
| | No: Claims | 1 2 19 20 |
| Inventive step (IS) | Yes: Claims | 3-18 21-23 |
| | No: Claims | 1 2 19 20 |
| Industrial applicability (IA) | Yes: Claims | 1-23 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Notwithstanding the lack of clarity (see Box 8), the following opinion is given concerning novelty, inventive step and industrial applicability of the claims of the present application.

Reference is made to the following document:

D1: EP-A-0 848 085 (HERAEUS ELEKTROCHEMIE GMBH) 17 June 1998 (1998-06-17)

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1,2,19,20 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document):

an expandable-type anode for diaphragm chlor-alkali electrolysis cells (col. 1, l. 3-13, fig. 2a) comprising
a conductive stem (fig. 2a : 8),
two movable surfaces connected to said conductive stem (fig. 2a : 5a, 5b) through connecting sheets (fig. 2a : 7) and at least one forcing elastic element directed to adjust the gap between said movable surfaces and the diaphragm surface (fig. 2a : 12,1,3,14,15 and fig. 2b-2f), said at least one forcing elastic element being provided with edges having adjustable span.

Therefore **claim 1** is not new in the sense of Article 33(2) PCT.

Document D1 further discloses the anode described above wherein said adjustable span of said edges is externally adjustable (fig. 2a : 12,1,3,14,15 and fig. 2b-2f).

In addition, the anode described in document D1 is meant to belong to a diaphragm chlor-alkali electrolysis cell (col. 1, l. 3-13, fig. 2a).

Moreover document D1 discloses the process of externally regulating the gap between the movable surfaces of the anode and the corresponding diaphragm surface through the span of the edges of the forcing elastic element before at least one cell is put in operation (col. 4, l. 18-26).

Therefore dependent **claims 2, 19, 20** are not new in the sense of Article 33(2) PCT.

As claims 1,2,19,20 are not new, they cannot involve an inventive step.

In claim 3, the span of the forcing elastic element directed to adjust the gap between said movable surfaces and the diaphragm surface is adjusted by mean of an extractable tool. This is not disclosed by document D1, therefore the subject-matter of **claim 3** is considered to be new (Article 33(2) PCT). This new system seems to be a more accurate mean for adjusting the span of the forcing elastic element ; therefore the anode of claim 3 of the present application is considered as involving an inventive step (Article 33(3) PCT).

Claims 4-16 are dependent on claim 3 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Lastly, **claims 1-23** are all industrially applicable.

Re Item VIII

The application does not meet the requirements of Article 6 PCT, because claims 17,18,21-23 are not clear for the following reasons :

Claims 17,18,21,22 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claims attempt to define the subject-matter in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result.

Claim 23 does not comply with rule 6.2(a) as it relies on references to the drawings.